

REMARKS

Applicant appreciates the Examiner's thorough consideration provided in the present application. Claims 4-12 are currently pending in the instant application. Claims 4, 7, 11 and 12 are independent. Claims 1-3 have been cancelled by the Amendment filed on December 5, 2003. Reconsideration of the present application is earnestly solicited.

Applicant submits that the subject matter of claims 11 and 12 is fully supported by the original written description, including, but not limited to, FIGs. 3 and 5 and pages 9-14 of the specification.

Minor Informalities

In order to expedite the prosecution of the present application, Applicant has amended claims 4-10 to address potential informalities with the claims. However, Applicant submits that the changes to the claims do not address a substantial question of the patentability of the claimed invention nor do they narrow the scope of the claimed invention.

CONCLUSION

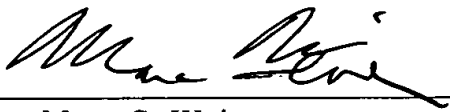
Attached hereto is a marked-up version of the changes made to the application by this Amendment.

In the event there are any matters remaining in this application, the Examiner is invited to contact Matthew T. Shanley, Registration No. 47,074 at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: Version with Markings to Show Changes Made

MARKED-UP VERSION OF AMENDMENTS

IN THE CLAIMS:

The claims have been amended as follows:

4. (Amended) A position determining device for determining a position of a subject movable within a predetermined movement range, the position determining device comprising:

a relative position determiner for determining a relative [moving] movement amount of the subject with respect to a reference point; and

an absolute position determiner for determining an absolute position of the subject within the movement range; wherein[: since the position determining device is turned on until the absolute position determiner detects the subject being at a limit of the movement range, the] said position determining device determines the position of the subject in accordance with data outputted from the absolute position determiner and said position determining device operates until the absolute position determiner detects the subject reaching a limit of the movement range; and

[after the absolute position determiner detects the subject being at the limit of the movement range,] the reference point for determination of the relative position determiner is established at the limit of the movement range of the subject after the absolute position determiner detects the subject reaching the limit of the movement range, and the position determining device

determines the position of the subject in accordance with data outputted from the relative position determiner.

5. (Amended) The position determining device [as defined in claim 4] according to claim 4, wherein:

the relative position determiner comprises an incremental rotary encoder and a counter for counting encode pulses outputted from the rotary encoder; and

the absolute position determiner comprises a potentiometer.

6. (Amended) The position determining device [as defined in claim 4] according to claim 4, wherein the subject is a control member of a lens control unit for electrically controlling at least one of focus and zoom of a TV lens [electrically].

7. (Amended) A position determining device for determining a position of a subject movable within a predetermined movement range, the position determining device comprising:

a relative position determiner for determining a relative [moving] movement amount of the subject with respect to a reference point;

an absolute position determiner for determining an absolute position of the subject within the movement range; and

a storage device for previously storing standard output data of the absolute position determiner corresponding to a plurality of positions of the subject within the movable range, and previously storing standard output data of the relative position determiner corresponding to the standard output data of the absolute position determiner, the reference point for the standard output data of the relative position determiner being established at a limit of the movement range of the subject;

wherein[, upon being turned on,] the position determining device obtains data outputted from the absolute position determiner upon being turned on and the position determining device [,] then reads[, from the storage device,] the standard output data of the relative position determiner corresponding to the obtained data outputted from the absolute position determiner from the storage device, and thereafter determines the position of the subject in accordance with data outputted from the relative position determiner with reference to the read standard output data of the relative position determiner.

8. (Amended) The position determining device [as defined in claim 7] according to claim 7, wherein[, upon being turned on,] the position determining device obtains a plurality of pieces of the data outputted from the absolute position determiner and data outputted from the relative position determiner to judge reliability of the obtained data outputted from the absolute position determiner upon being turned on.

9. (Amended) The position determining device [as defined in claim 7] according to claim 7, wherein:

the relative position determiner comprises an incremental rotary encoder and a counter for counting encode pulses outputted from the rotary encoder; and

the absolute position determiner comprises a potentiometer.

10. (Amended) The position determining device [as defined in claim 7] according to claim 7, wherein the subject is a control member of a lens control unit for electrically controlling at least one of focus and zoom of a TV lens [electrically].

Claims 11 and 12 have been added.